AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A non-iterative boundary value correction method comprising the steps of:

a) deriving a non-iterative equation that gives a calculated correction to a boundary value component in a pressure control system based on an error between commanded pressure and observed pressure;

b) observing an error between the commanded pressure and the observed pressure that is attributable to boundary value error;

c) calculating a value of the error between the commanded pressure and the observed pressure;

d) updating a value representing the voltage necessary to take a valve of the pressure control system from a de-energized state to a just-closed position based at least in part upon the value of the error calculated; and

[[d]] e) applying a correction in the amount of the calculated error to the boundary value component of the pressure control system.

2. (Previously Presented) The method defined in Claim 1 wherein the boundary value component is calculated based on a single determination of the error between the commanded pressure and the observed pressure.

3. (Previously Presented) The method defined in Claim 1 wherein the boundary value correction method is implemented each time the pressure control system using the boundary value correction method is operated.

4. (Previously Presented) The method defined in Claim 1 wherein the error between the commanded pressure and the observed pressure is determined for an entire operating range of pressures of the pressure control system.

5. (Previously Presented) The method defined in Claim 4 wherein the boundary value errors for the range of pressures is determined by at least one of a pressure upward sweep and a pressure downward sweep through the range of pressures.

6. (Previously Presented) The method defined in Claim 4 wherein the boundary value errors for the range of pressures is determined by both of a pressure upward sweep and a pressure downward sweep through the range of pressures.

7. (Previously Presented) The method defined in Claim 6 wherein the pressure downward sweep has different rates of pressure decrease at different regions in the range of pressures.

8. (Currently Amended) A boundary value correction method comprising the steps of:

a) determining boundary values in a first range of pressure differentials for a valve;

b) applying a model to the determined boundary values; [[and]]

c) estimating a boundary value for a second range of pressure differentials across the valve; and

d) updating a value representing the voltage necessary to take the valve from a de-energized state to a just-closed position based at least in part upon the estimated boundary value.

9. (Previously Presented) The method defined in Claim 8 wherein the first range of pressure differentials are from about 0 bar to about 50 bar.

10. (Previously Presented) The method defined in Claim 9 wherein the second range of pressure differentials are from about 50 bar to about 120 bar.

11. (Previously Presented) The method defined in Claim 8 wherein the first range of pressure differentials are from about 120 bar to about 180 bar.

12. (Previously Presented) The method defined in Claim 11 wherein the second range of pressure differentials are from about 50 bar to about 120 bar.

13. (Previously Presented) The method defined in Claim 12 wherein the model is an estimation model using at least one valve constant and a pressure value at which the boundary value is estimated.

14. (Previously Presented) The method defined in Claim 13 wherein the estimation model is based on at least one of a linear function and an exponential function.

15. (Currently Amended) An iterative boundary value correction method comprising:

a) deriving an iterative equation that gives a calculated correction to a boundary value component in a pressure control system based on an error between commanded pressure and observed pressure;

b) observing an error between the commanded pressure and the observed pressure that is attributable to boundary value error;

c) calculating a value of the error between the commanded pressure and the observed pressure;

d) updating a value representing the voltage necessary to take a valve of the pressure control system from a de-energized state to a just-closed position based at least in part upon the value of the error calculated; and

[[d]] e) applying a correction in the amount of a fraction of the calculated error to the boundary value component of the pressure control system.

16. (Previously Presented) The method defined in Claim 15 wherein the boundary value component is calculated based on a single determination of the error between the commanded pressure and the observed pressure.

17. (Previously Presented) The method defined in Claim 15 wherein the boundary value correction method is implemented each time a brake system using the boundary value correction method is operated.

18. (Previously Presented) The method defined in Claim 15 wherein the error between the commanded pressure and the observed pressure is determined for an entire operating range of pressures of the pressure control system.

19. (Previously Presented) The method defined in Claim 18 wherein the boundary value errors for the range of pressures is determined by at least one of a pressure upward sweep and a pressure downward sweep through the range of pressures.

20. (Previously Presented) The method defined in Claim 18 wherein the boundary value errors for the range of pressures is determined by both of a pressure upward sweep and a pressure downward sweep through the range of pressures.

21. (Previously Presented) The method defined in Claim 20 wherein the pressure downward sweep has different rates of pressure decrease at different regions in the range of pressures.